

ABSTRACT

An optical wavelength control system for an optical source (LD) such as a laser diode in a DWDM transmitter module includes a beamsplitter arrangement (9, 10; 12) for propagating radiation from the source (LD) over two paths. A first (1) and a second (2) photodetector are arranged each in a respective one of said two propagation paths, while a wavelength selective optical filter (3) is interposed in the propagation path from the source (LD) to the first photodetector (1). The first (1) and second (2) photodetectors are thus adapted to generate photocurrents indicative of the possible displacement of the actual wavelength of the radiation from said source (LD) with respect to a reference wavelength and the power emitted by the optical source, respectively. The beamsplitter arrangement (9, 10; 12) is arranged to split the radiation from said source (LD) towards the photodetectors (1, 2) in a direction generally transverse to said radiation and the wavelength selective optical filter (3) is mounted over the beamsplitter arrangement (9, 10; 12) whereby the beamsplitter arrangement, the optical filter (3) and the photodiodes (1, 2) comprise a compact assembly extending in a direction generally transverse to the propagation direction of the radiation from said source (LD). The optical beams lie in a plane that is perpendicular to the optical bench plane, thus leading to a significant footprint reduction.

(Figure 2)